Fig. 1

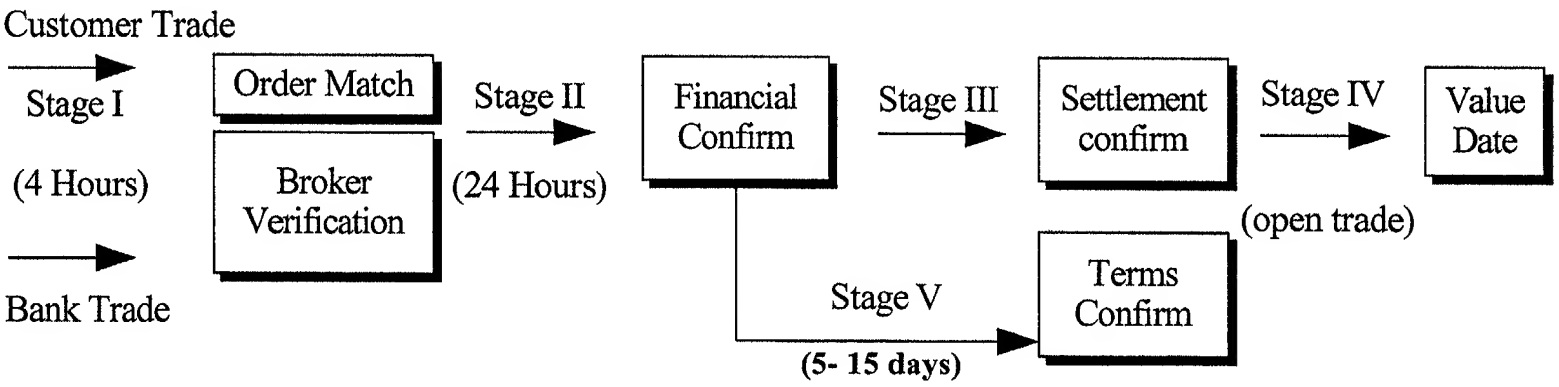

Customer Trade
Stage I
(4 Hours)
Bank Trade
Order Match
Broker Verification
Stage II
(24 Hours)
Financial Confirm
Stage III
Settlement confirm
Stage IV
Value Date
(open trade)
Stage V
(5- 15 days)
Terms Confirm

Fig. 2A

Event - Order Match	Event - Broker Verification	Event - Financial Confirmation	Event – Settlement Confirmation	Event – Terms Confirmation
Elapsed Time	Elapsed Time	Elapsed Time	Frequency Of Notional	Elapsed Time
Historical Volatility	Historical Volatility	Historical Volatility	Time to Settlement Cut-off	Historical Volatility
Deviation From Average Volatility	Deviation From Average Volatility	Deviation From Average Volatility	Potential OD Rates	Deviation From Average Volatility
Mark-To-Market	Mark-To-Market	Mark-To-Market	Fail Recovery Time	Mark-To-Market
Trader Error Ratio	Trader Error Ratio	Trader Error Ratio	Payment Instruction Precedence	Trader Error Ratio
Sales Error Ratio	Sales Error Ratio	Sales Error Ratio	Regulatory Risk	Sales Error Ratio
Frequency Of Notional	Frequency Of Notional	Frequency Of Notional	Master Agreement (Provisions for Netting)	Incoming Confirm Method
Client Sensitivity	Execution Method	Execution Method	Client Operating Infrastructure	Outgoing Confirm Method
		Client Sensitivity	Country Operating Infrastructure	Template Precedence
		Client Operating Infrastructure	Client Sensitivity	Frequency Of Notional
		Incoming Confirm Method	Liquidity Risk	Master Agreement (Provisions for Netting)
		Outgoing Confirm Method	Settlement Confirm Operator	Product Complexity
		Outgoing Confirm Delay/Elapsed Time		Client Sensitivity
		Internal Credit Rating		
		Confirm Operator		

Fig. 2B

Average Historical Volatility – A moving average (e.g., six month moving average) of trades with the same currency pair as well as the same time to maturity.
Current Volatility - A measure of the current market volatility with respect to the currency pair and the time to maturity.
Trader/Sales Error Ratio – How often a sales rep or trader books trades that need to be amended compared to the total number of trades he/she books.
Mark to Market – The current market value of the trade.
Elapsed Time – The amount of time that has elapsed from when the trade was booked to the current time.
Frequency of Notional – Number of times a trade with the same notional on primary currency occurs.
Possibility of Duplicate Deal – Number of times a trade with the same notional on both the primary and secondary currency occurs.
Execution Method – How the trade was done, either through conventional routers, on the phone, through an electronic broker, or through a voice broker, for example.
Customer Sensitivity – A value assigned to indicate a client who has special needs, thus requiring heightened sensitivity.
Customer Infrastructure – A value assigned to indicate how strong or weak a client's operations processes are believed to be.
Incoming Confirm Method – Indicates how the trade was confirmed. The incoming confirm method could be either electronic, phone, fax, or email, for example.
Outgoing Confirmation Method – How was confirmation to the client dispatched (e.g., by fax, mail, or email).
Template Precedence - This refers to the "newness" of the trade. That is, how often has this type of trade been done before (or is this type of trade a completely new type with new "bells and whistles".)
Master Agreement (Provisions For Netting) - The trade may be done for a client or with a bank with which there is a "master agreement", because many trades may be done with that client or institution. The "provisions for netting" then imply that any transfer of funds is done after taking into account several trades with the same client within the same period.
Potential Overdraft Rates (Potential OD Rates) - If the transfer of funds is not done in a timely fashion or with the correct amounts, then with regard to one or more parties certain interest payments may start playing a role.

Fig. 3

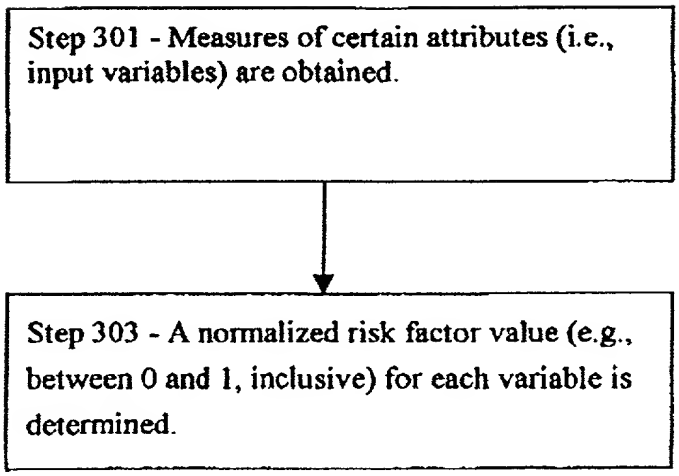
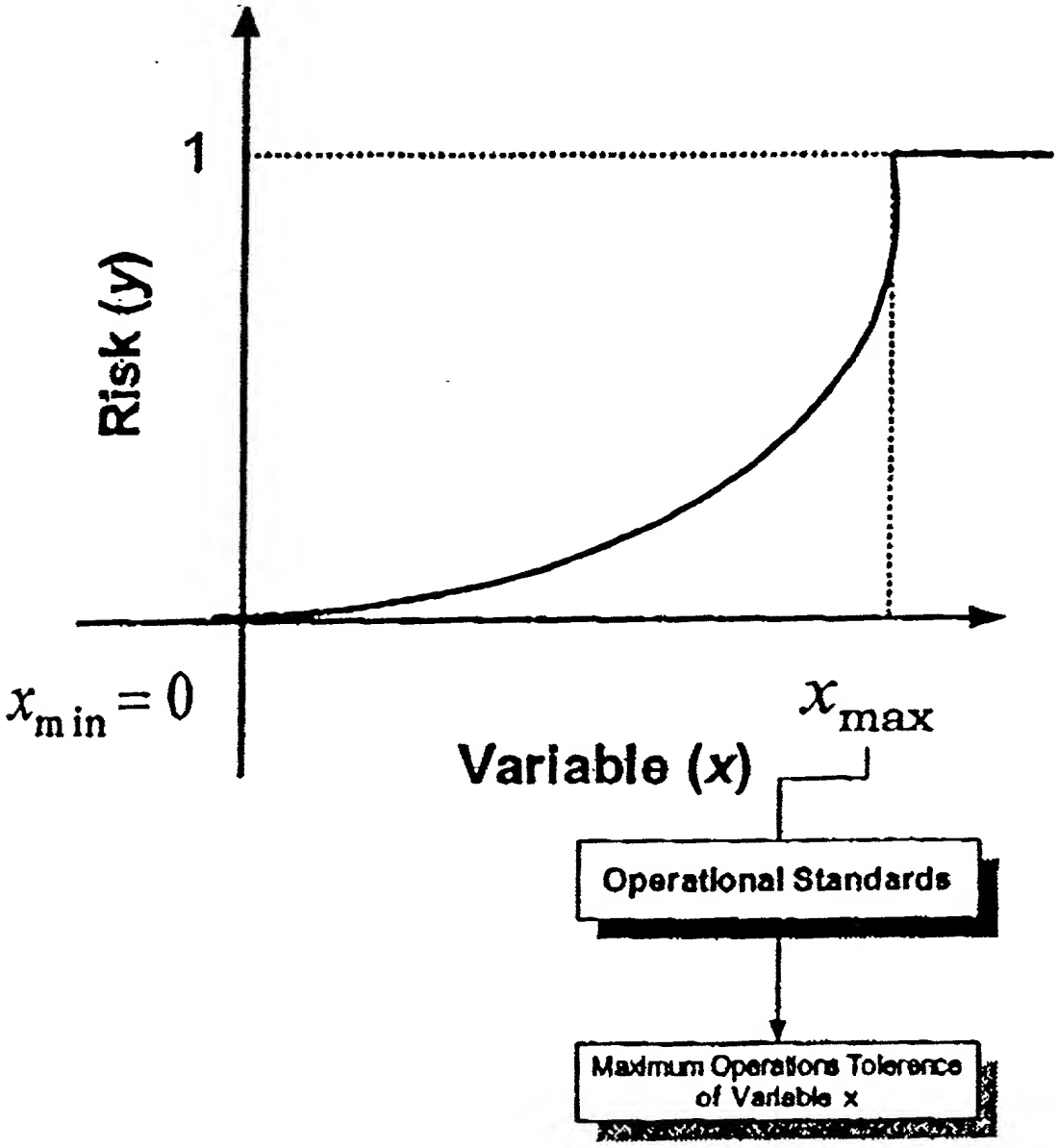

Step 301 - Measures of certain attributes (i.e., input variables) are obtained.
Step 303 - A normalized risk factor value (e.g., between 0 and 1, inclusive) for each variable is determined.

Fig. 4


1
Risk (y)
$x_{min} = 0$
x_{max}
Variable (x)
Operational Standards
Maximum Operations Tolerance of Variable x

Provisional Proposed

Fig. 5

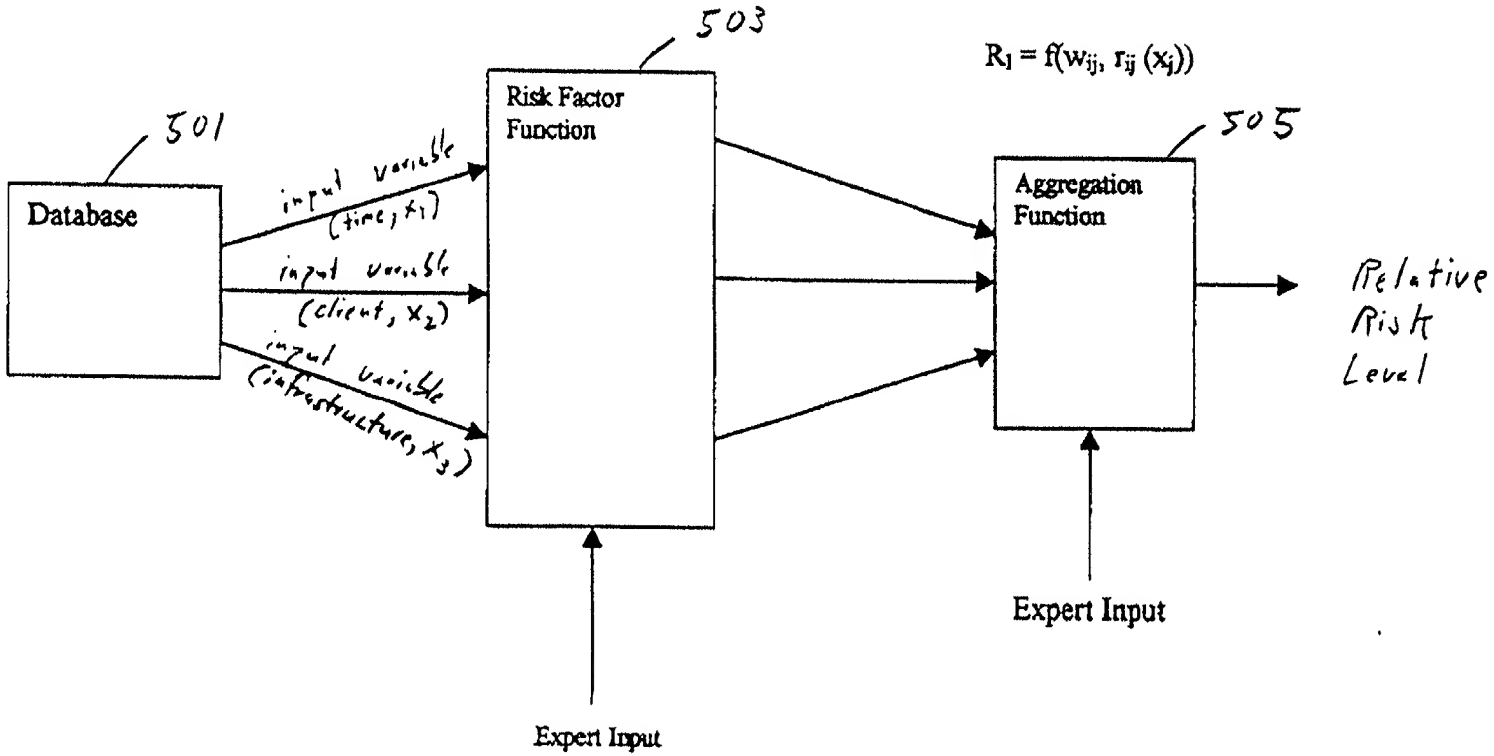


Fig. 6

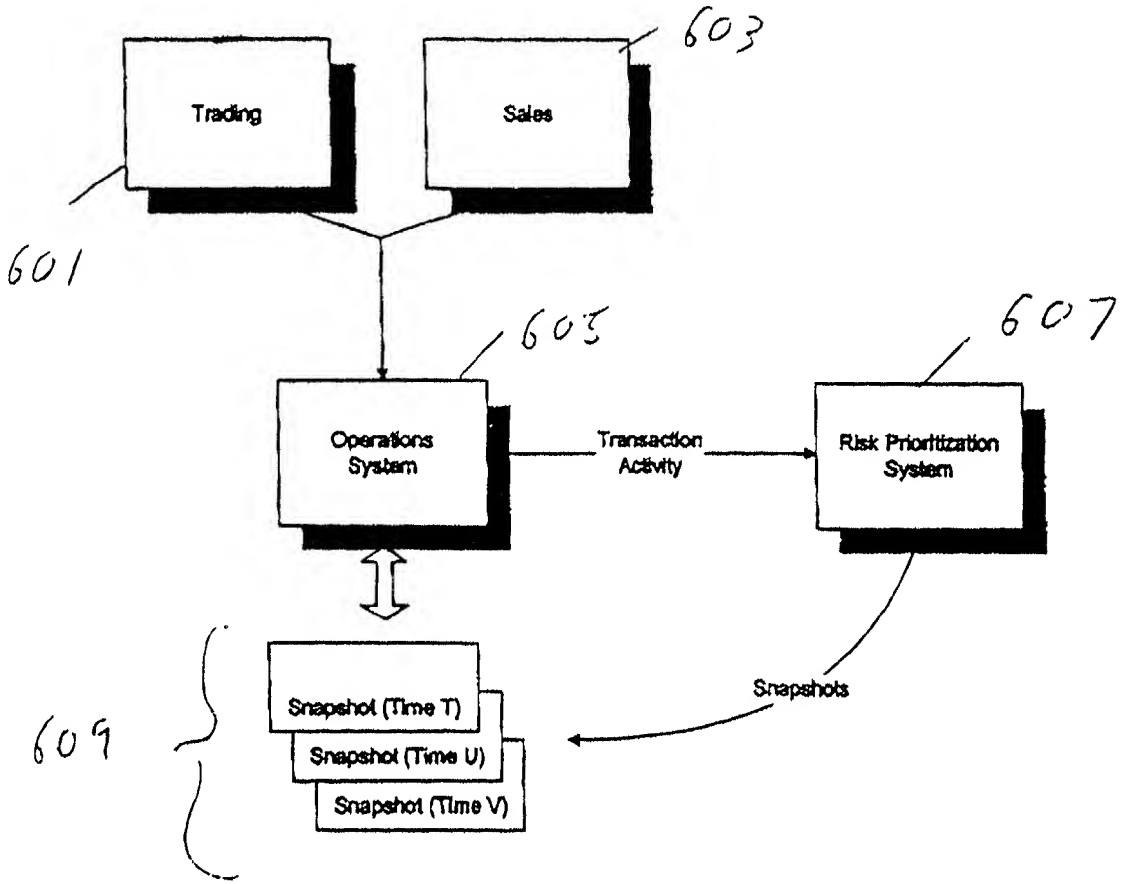

603
Trading
Sales
601
605
607
Operations System
Transaction Activity
Risk Prioritization System
Snapshots
609
Snapshot (Time T)
Snapshot (Time U)
Snapshot (Time V)

Fig. 7

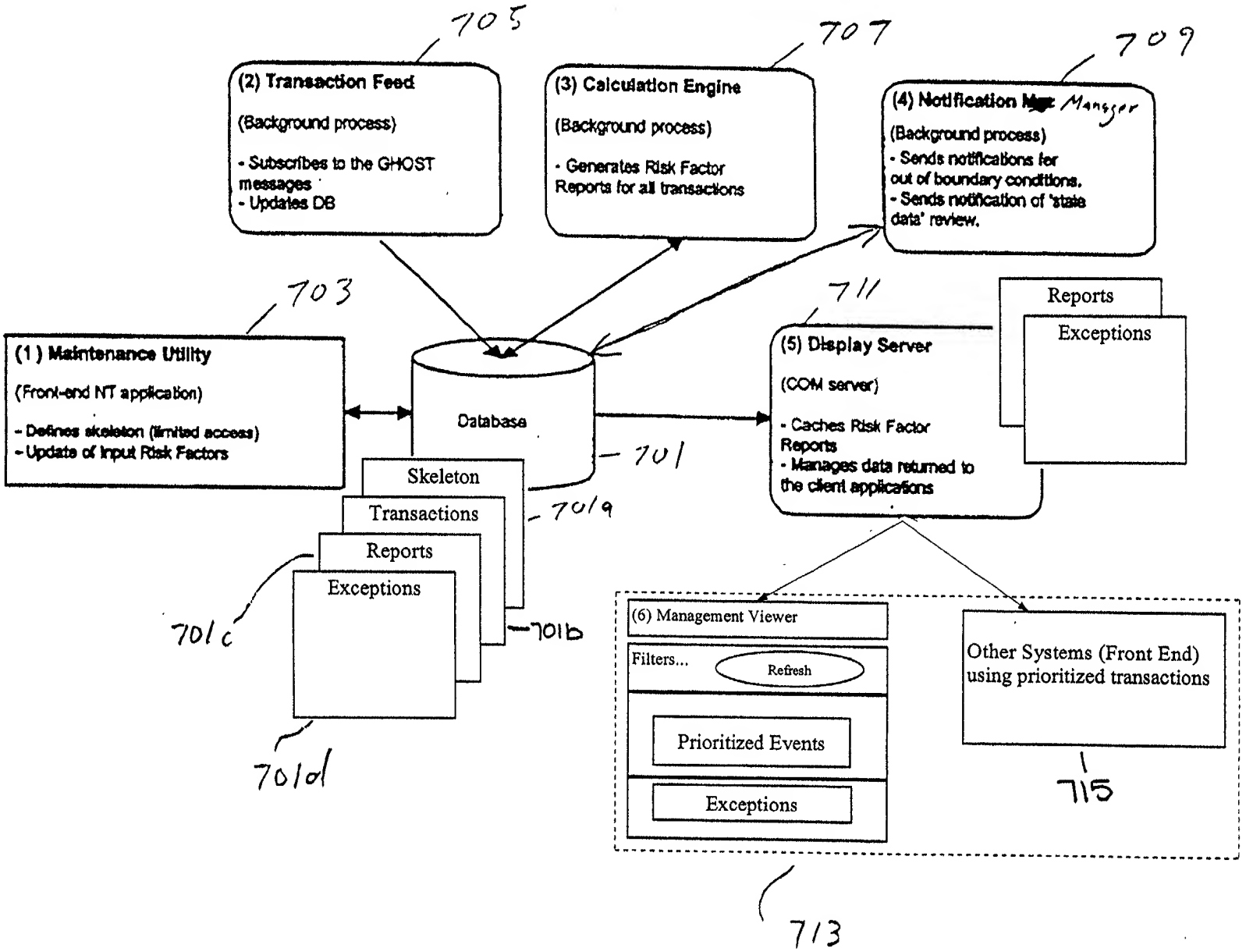

705
707
709
(2) Transaction Feed
(Background process)
- Subscribes to the GHOST messages
- Updates DB
(3) Calculation Engine
(Background process)
- Generates Risk Factor Reports for all transactions
(4) Notification Manager
(Background process)
- Sends notifications for out of boundary conditions.
- Sends notification of 'stale data' review.
703
711
(1) Maintenance Utility
(Front-end NT application)
- Defines skeleton (limited access)
- Update of Input Risk Factors
Database
701
Skeleton
Transactions
Reports
Exceptions
701a
701b
701c
701d
(5) Display Server
(COM server)
- Caches Risk Factor Reports
- Manages data returned to the client applications
Reports
Exceptions
(6) Management Viewer
Filters...
Refresh
Prioritized Events
Exceptions
Other Systems (Front End) using prioritized transactions
715
713

Fig. 8

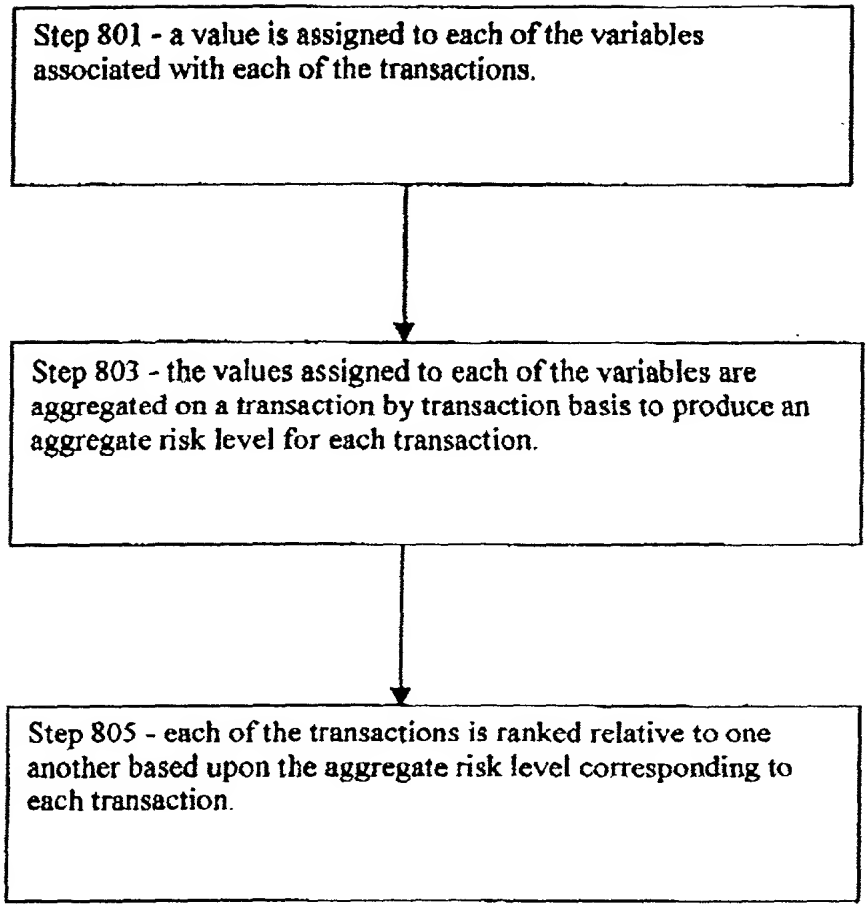

Step 801 - a value is assigned to each of the variables associated with each of the transactions.
Step 803 - the values assigned to each of the variables are aggregated on a transaction by transaction basis to produce an aggregate risk level for each transaction.
Step 805 - each of the transactions is ranked relative to one another based upon the aggregate risk level corresponding to each transaction.

Fig. 9

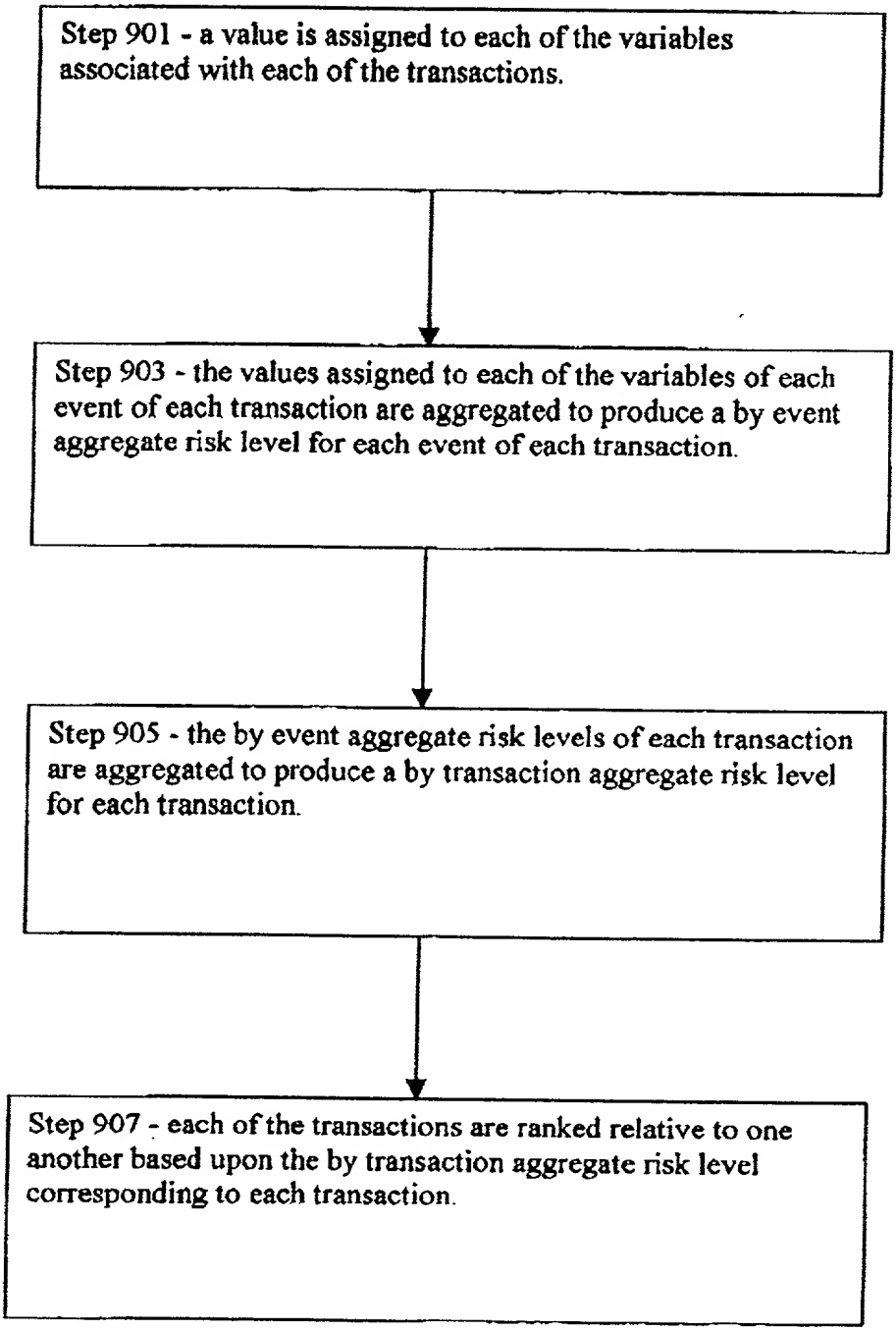

Step 901 - a value is assigned to each of the variables associated with each of the transactions.
Step 903 - the values assigned to each of the variables of each event of each transaction are aggregated to produce a by event aggregate risk level for each event of each transaction.
Step 905 - the by event aggregate risk levels of each transaction are aggregated to produce a by transaction aggregate risk level for each transaction.
Step 907 - each of the transactions are ranked relative to one another based upon the by transaction aggregate risk level corresponding to each transaction.

Fig. 10

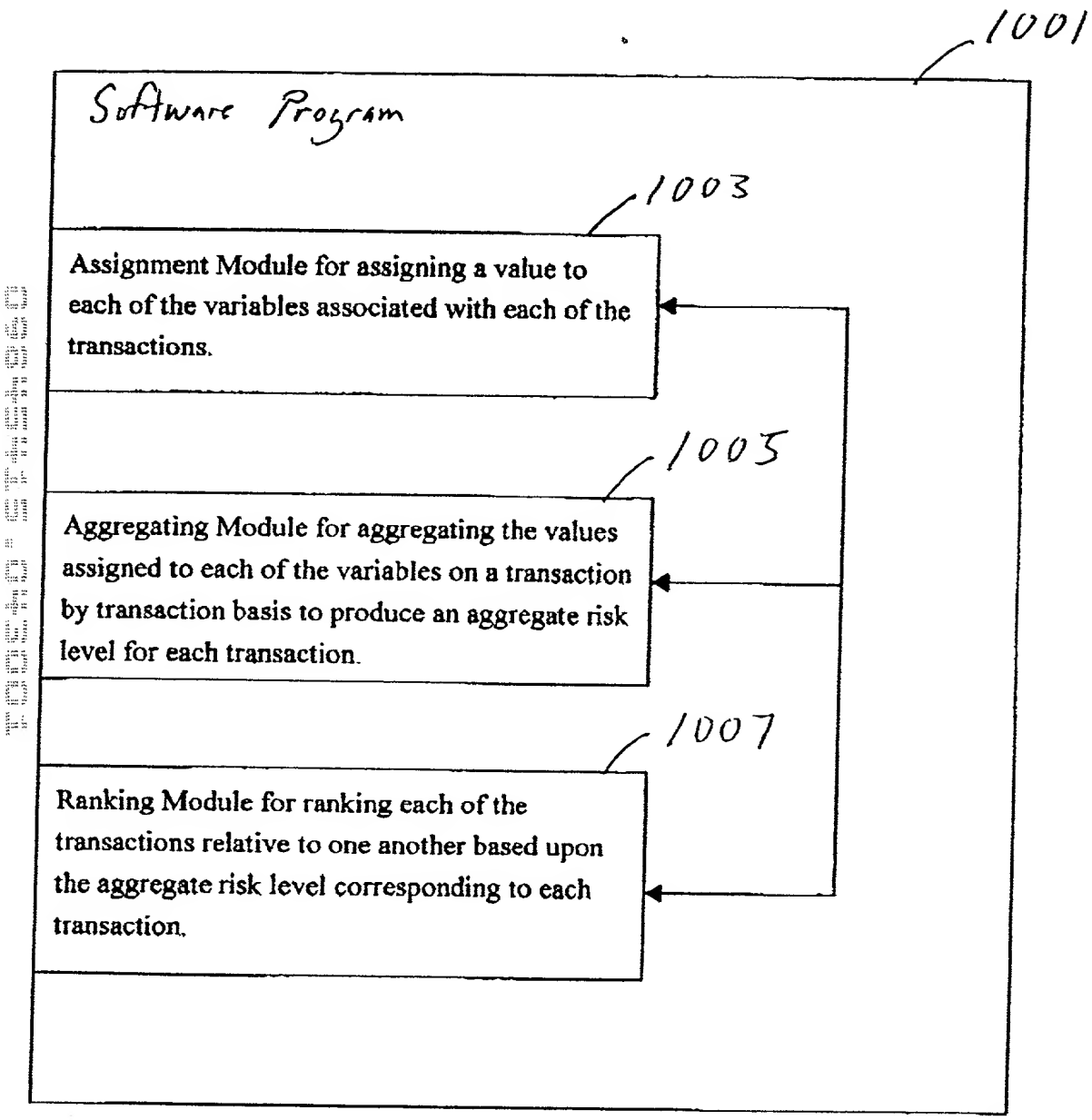

1001
Software Program
1003
Assignment Module for assigning a value to each of the variables associated with each of the transactions.
1005
Aggregating Module for aggregating the values assigned to each of the variables on a transaction by transaction basis to produce an aggregate risk level for each transaction.
1007
Ranking Module for ranking each of the transactions relative to one another based upon the aggregate risk level corresponding to each transaction.

Fig. 11

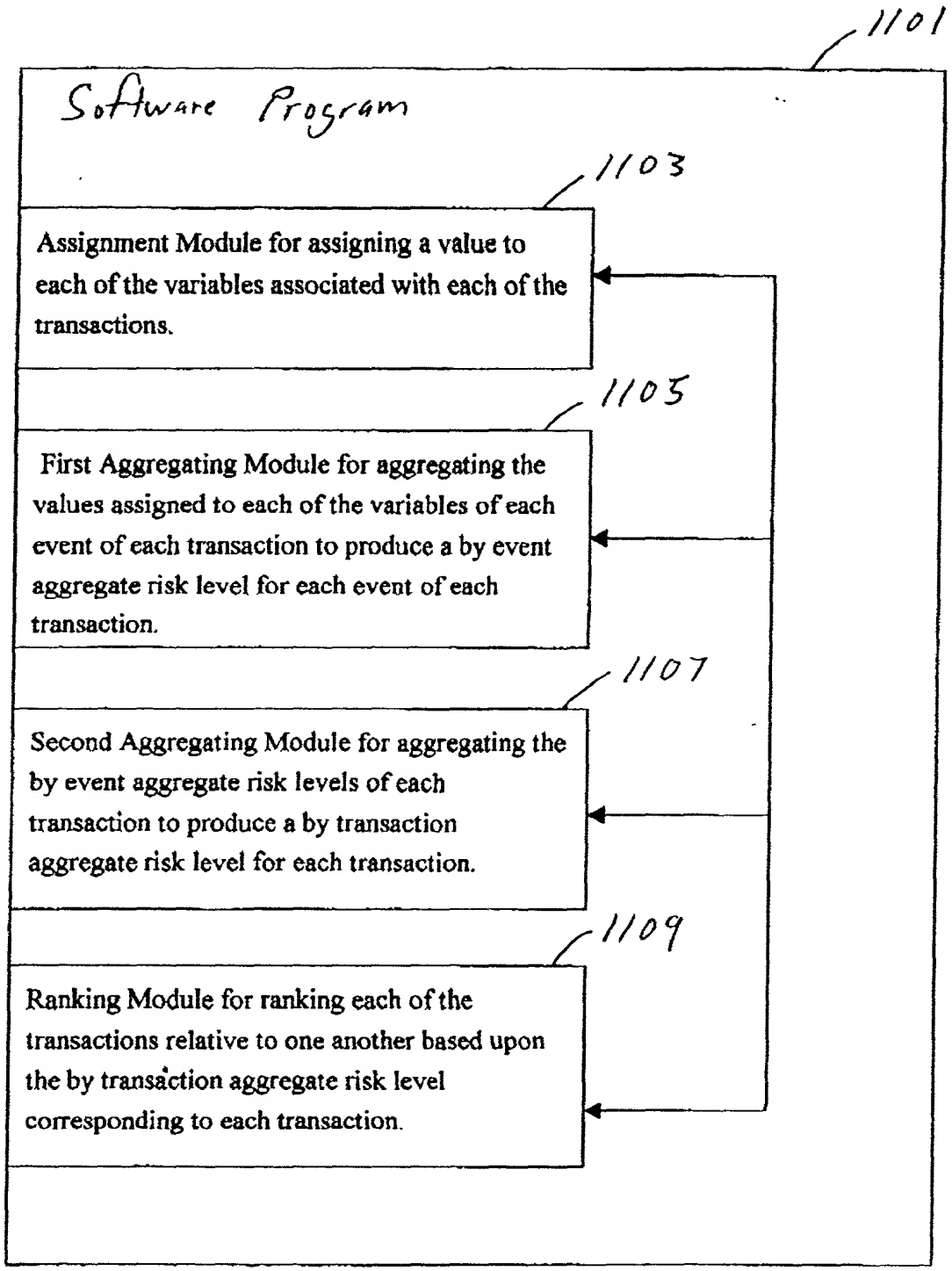
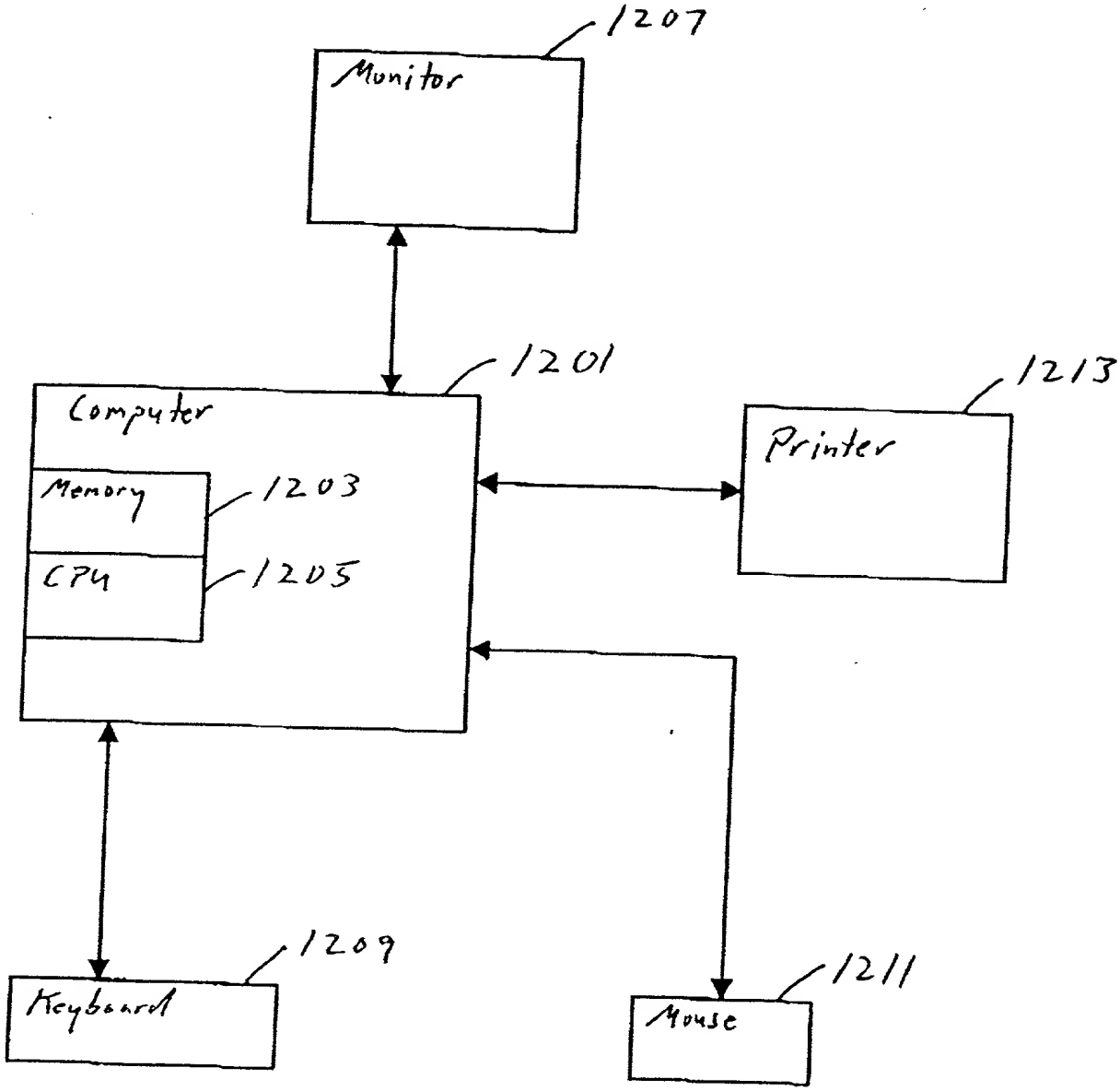

1101
Software Program
1103
Assignment Module for assigning a value to each of the variables associated with each of the transactions.
1105
First Aggregating Module for aggregating the values assigned to each of the variables of each event of each transaction to produce a by event aggregate risk level for each event of each transaction.
1107
Second Aggregating Module for aggregating the by event aggregate risk levels of each transaction to produce a by transaction aggregate risk level for each transaction.
1109
Ranking Module for ranking each of the transactions relative to one another based upon the by transaction aggregate risk level corresponding to each transaction.

Fig. 12


1207
Monitor
1201
Computer
Memory
1203
CPU
1205
1213
Printer
1209
Keyboard
1211
Mouse